federal register

FRIDAY, JUNE 24, 1977

PART VI

ENVIRONMENTAL PROTECTION AGENCY

■

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Petroleum Refinery Fluid Catalytic Cracking Unit Catalyst Regenerators

Title 40—Protection of Environment

CHAPTER 1—ENVIRONMENTAL PROTECTION AGENCY

[FRL 742-5]

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Petroleum Refinery Fluid Catalytic Cracking Unit Catalyst Regenerators

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: This rule revises the standard which limits the opacity of omissions from new, modified, or reconstructed petroleum refinery fluid catalytic cracking unit catalyst regenerators to 30 percent, except for one six-minute period in any one hour. The revision is being made to make the standard consistent with a revision to the test method for opacity. The standard implements the Clean Air Act and is intended to require the proper operation and maintenance of fluid catalytic cracking unit catalyst regenerators.

EFFECTIVE DATE: June 24, 1976.

ADDRESSES: Copies of the comment letters and a report which contains a summary of the issues and EPA's responses are available for public inspection and copying at the U.S. Environmental Protection Agency, Public Information Reference Unit (EPA Library), Room 2922, 401 M Street SW., Washington, D.C. Copies of the report also may be obtained upon written request from the EPA Public Information Center (PM-215), Washington, D.C. 20460 (specify Comment Summary—Petroleum Refinery Fluid Catalytic Cracking Units).

FOR FURTHER INFORMATION CONTACT:

Don R. Goodwin, Emission Standards and Engineering Division, Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone number 919-688-8146, extension 271.

SUPPLEMENTARY INFORMATION:

BACKGROUND

On June 29, 1973, the U.S. Court of Appeals for the District of Columbia Circuit remanded to EPA the standards of performance for Portland cement plants (*Portland Cement Association* v. *Ruckelshaus*, 486 F. 2d 375). One of the issues remanded was the use of opacity standards. On November 12, 1974, EPA responded to the remand (39 FR 39872) and on May 22, 1975, the Court affirmed the use of opacity standards (513 F. 2d 506).

In the remand response, EPA reconsidered the use of opacity standards and concluded that they are a reliable, inexpensive, and useful means of ensuring that control equipment is properly maintained and operated at all times. EPA also made revisions to the general provisions of 40 CFR Part 60 and to the Reference Method 9.

EPA reevaluated the opacity standard for petroleum refinery fluid catalytic cracking unit catalyst regenerators in light of the revisions to Reference Method 9, and proposed a revision to this standard on August 30, 1976 (41 FR 36600). The revision is not the result of a reevaluation of the technical, economic and environmental basis for the standard. Consequently, the revised opacity standard will be neither more nor less stringent than the previous standard, and will be consistent with the mass emission standard (1.0 kg/1000 kg of coke burnoff).

SUMMARY OF COMMENTS AND EPA'S RESPONSES

EPA received six letters commenting on the proposed revision (three from industry and three from State and local governments). Two commenters pointed out that the basis for the original opacity standard assumed new fluid catalytic cracking units would be of 65,000 barrels per day capacity, but the proposed revision assumed new fluid catalytic cracking units would be of less than 50,000 barrels per day capacity. Two other commenters pointed out that the original standard allowed one three-minute exception from the opacity standard of performance to accommodate soot-blowing in the carbon monoxide boiler and that the proposed change to six-minute averages did not justify adding an additional exception.

A review of the basis for the original opacity standard indicates the commenters are correct. Large, new or modified fluid catalytic cracking units will more likely be in the range of 65,000 barrels per day capacity, and one exception per hour more accurately reflects the one three-minute exception allowed under the previous test method. The effect of increased capacity on the opacity of particulate mass emissions was discussed both in the FEDERAL REGISTER notice proposing revision of the opacity standard and in the background information document supporting the revision. Considering the effect on opacity of the greater capacity of a 65,000-barrel-per-day fluid catalytic cracking unit compared to a 50,000-barrel-per-day unit leads to the conclusion that the opacity standard should not be revised to 25 percent, but should remain at 30 percent opacity. Accordingly, the revised opacity standard is promulgated as 30 percent opacity with one six-minute exception period per hour.

One comment concerned § 60.11(e) of the General Provisions and questioned whether in its present form it adequately accounts for the problems of petroleum refinery fluid catalytic cracking units. Section 60.11(e) provides relief for those individual sources where, because of operating variables, opacity readings are abnormally high and cause it to exceed the standard, even though it is in compliance with the mass emission standard. The mechanism for relief is that opacity readings may be taken during initial start-up mass emission testing and a special opacity standard assigned to the source.

Petroleum refinery fluid catalytic cracking units operate continuously for periods of two years or more; and over such long periods, mass and opacity emissions gradually increase. For this reason, the mass and opacity standards were set on the basis of levels achievable at the end of the run. It is to be expected, therefore, that at the beginning of the run, both mass and opacity emissions from such units will be well below the standard, even in some cases where opacity readings are abnormally high given the mass emissions. In such cases, an individualized opacity standard based on beginning-of-run readings would not necessarily prevent the facility which still meets the mass emissions standard at the end of the run from failing an end-of-run opacity test. To alleviate this problem, EPA is adding a new § 60.106 (e) to the petroleum refinery standard which, in conjunction with §§ 60.11 (e) (2), (e) (3), and (e) (4) of the General Provisions, will permit determination of an individualized opacity standard for a fluid catalytic cracking unit during any performance test and not just the initial performance test. This will ensure that a properly operated and maintained source will not be found in violation of the opacity standard, while in compliance with the applicable mass emission standard.

The proposed amendment to § 60.102 (a) (2) specified that opacity readings of portions of plumes which contain condensed, uncombined water vapor are not to be used for determining compliance with opacity standards. Since this provision has been added to § 60.11(b) of the General Provisions, it is not necessary to repeat it in Subpart J for petroleum refineries.

MISCELLANEOUS

The opacity standard, as modified, applies to all affected facilities for which construction or modification was commenced after June 11, 1973, the date the standard was proposed.

This revision is promulgated under the authority of sections 111, 114, and 301(a) of the Clean Air Act, as amended by Public Law 91-604, 84 Statute 1683, 1687 (42 U.S.C. 1857c-6, 1857c-9) and Public Law 90-148, 81 Statute 504 (42 U.S.C. 1857g(a)).

NOTE.—The Environmental Protection Agency has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Orders 11821 and 11949, and OMB Circular A-107.

Dated: June 20, 1977.

DOUGLAS M. COSTLE,
Administrator.

Part 60, Chapter I of Title 40 of the Code of Federal Regulations is amended as follows:

1. Section 60.102(a)(2) is revised to read as follows:

§ 60.102 Standard for particulate matter.

(a) * * *

(2) Gases exhibiting greater than 30 percent opacity, except for one six-minute average opacity reading in any one hour.

* * * * *

(Sec. 111, Pub. L. 91-604, 84 Stat. 1683 (42 U.S.C. 1857c-6); sec. 301(a), Pub. L. 90-148, 81 Stat. 504 (42 U.S.C. 1857g(a)).)

2. Section 60.105(e)(1) is revised to read as follows:

§ 60.105 Emission monitoring.

* * * * *

(e) * * *

(1) Opacity. All hourly periods which contain two or more six-minute periods during which the average opacity as measured by the continuous monitoring system exceeds 30 percent.

* * * * *

3. Section 60.106(e) is added to read as follows:

§ 60.106 Test methods and procedures.

* * * * *

(e) An owner or operator of an affected facility may request the Administrator to determine opacity of emissions from the affected facility during any performance test covered under § 60.8. In such event the provisions of §§ 60.11 (e)(2), (e)(3), and (e)(4) shall apply.

(Sec. 111, 114, Pub. L. 91-604, 84 Stat. 1683, 1687 (42 U.S.C. 1857c-6, 1857c-9); sec. 301(a), Pub. L. 90-148, 81 Stat. 504 (42 U.S.C. 1857g(a)).)

[FR Doc.77-18129 Filed 6-23-77;8:45 am]